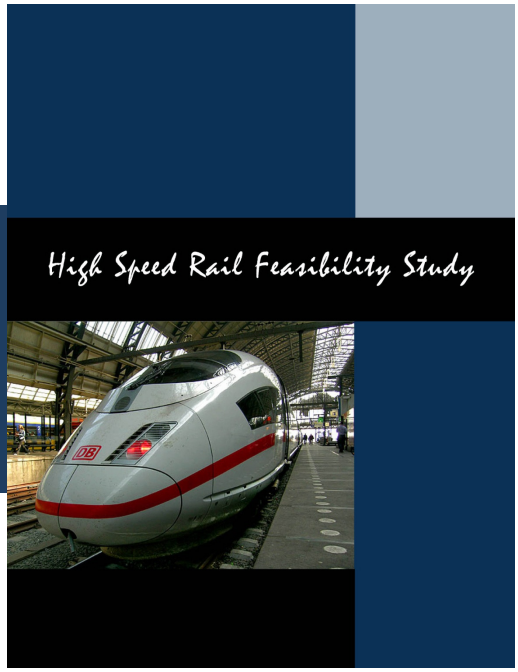
Presentation To

RMRA Feasibility Study Steering Committee

Feasibility Update

May 22, 2009



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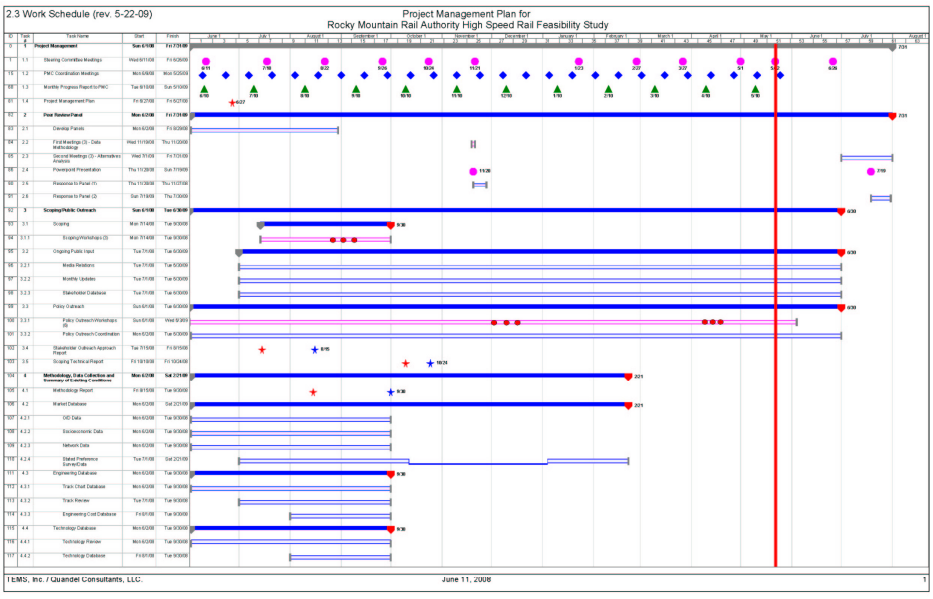
Study Work Schedule: Tasks 1 thru 4.4.2


2.3 Work Schedule (rev. 5-22-09)
Project Management Plan for
Rocky Mountain Rail Authority High Speed Rail Feasibility Study
TEMS, Inc. / Quandel Consultants, LLC
June 11, 2008

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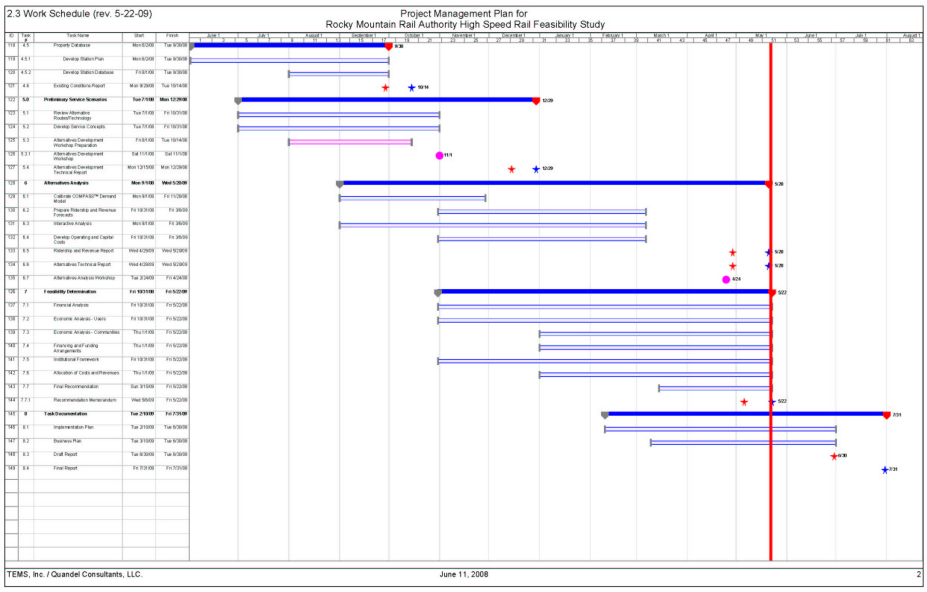
Study Work Schedule: Tasks 4.5 thru 8.4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Project Management Plan for
Rocky Mountain Rail Authority High Speed Rail Feasibility Study
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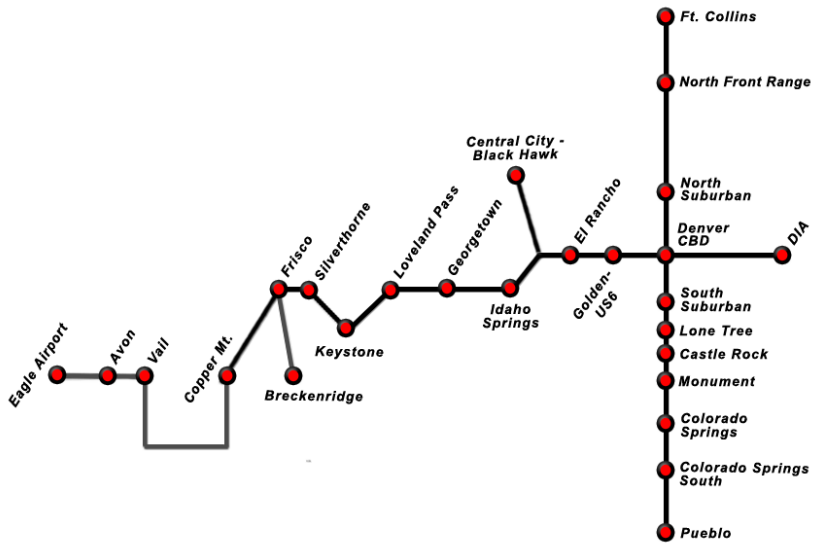
RMRA Approved Initial Build Out



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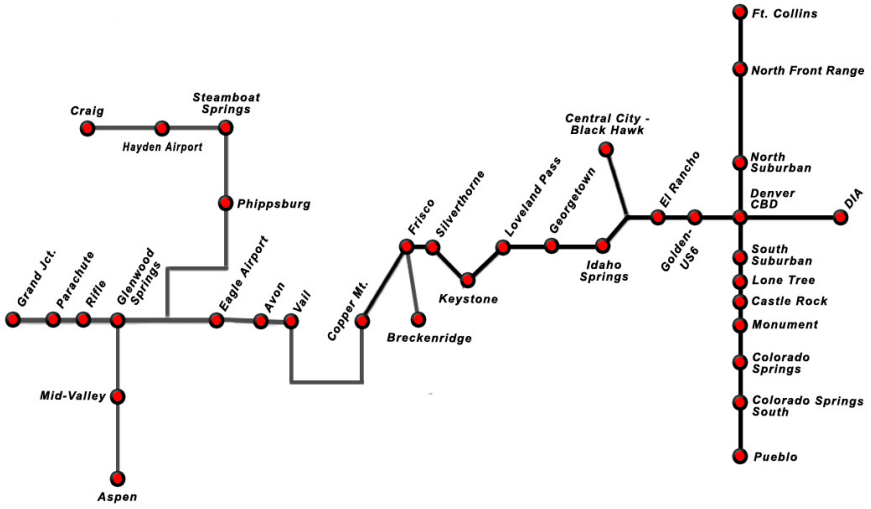
RMRA Approved Full Build Out



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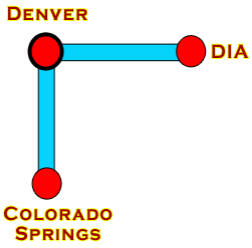
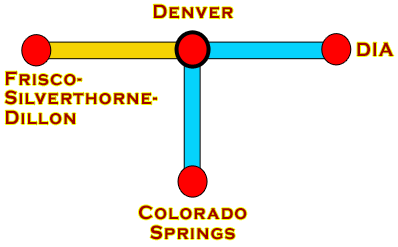
RMRA Recommended Routes Phases 1 & 2

PHASE 1



PHASE 2



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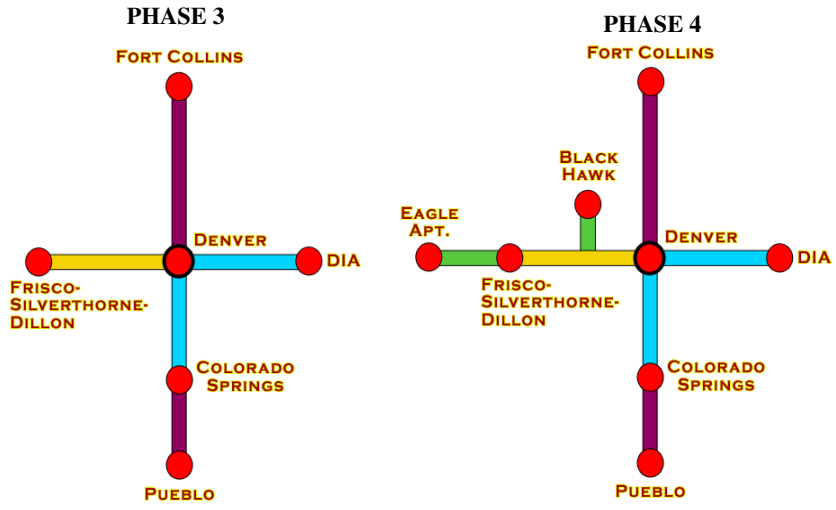
RMRA Recommended Routes Phases 3 & 4



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Preliminary Implementation Plan for the RMRA Preferred Alternative

RMRA Implementation	Billions ($2008)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
PHASE 1	$2.84													
Colorado Springs - Denver - DIA			*PEIS/EIS*		*Design*			*Construction*			*Operations*			
PHASE 2	$8.80													
Denver - Silverthorne/Dillon/Frisco			*PEIS/EIS*		*Design*			*Construction*				*Operations*		
PHASE 3	$3.30													
Denver - Fort Collins / Pueblo				*PEIS/EIS*			*Design*		*Construction*			*Operations*		
PHASE 4	$4.30													
Frisco - Eagle Airport / Black Hawk				*PEIS/EIS*			*Design*				*Construction*		*Operations*	
VEHICLE PROCUREMENT	$0.60													
		Performance Spec.		*Design*		*Construction*								

Total Investment	Billions ($2008)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Planning and Implementation (PI)	$ 0.38	$ 0.23	$ -	$ 0.08	$ 0.08	$ -	$ -	$ -						
Preliminary Engineering (PE)	$ 0.67		$ 0.41	$ -	$ -	$ 0.27	$ -	$ -	$ -					
Final Design	$ 1.44			$ 0.33	$ 0.33	$ 0.22	$ 0.29	$ 0.29	$ -	$ -				
Construction	$ 16.74					$ 2.10	$ 2.10	$ 2.10	$ 3.17	$ 3.17	$ 3.17	$ 0.94		
Total Infrastructure	$ 19.24	$ 0.23	$ 0.41	$ 0.40	$ 0.40	$ 2.59	$ 2.38	$ 2.38	$ 3.17	$ 3.17	$ 3.17	$ 0.94		
Total Rolling Stock	$ 0.60					$ 0.07	$ 0.07	$ 0.07	$ 0.12	$ 0.12	$ 0.12	$ 0.03		
Total Investment	$ 19.84	$ 0.23	$ 0.41	$ 0.40	$ 0.40	$ 2.66	$ 2.45	$ 2.45	$ 3.29	$ 3.29	$ 3.29	$ 0.96		

Key to Implementation Stages	Key to Operations
PEIS/EIS	*Phase 1*
Performance Spec.	*Phase 2*
Design	*Phase 3*
Construction	*Phase 4*

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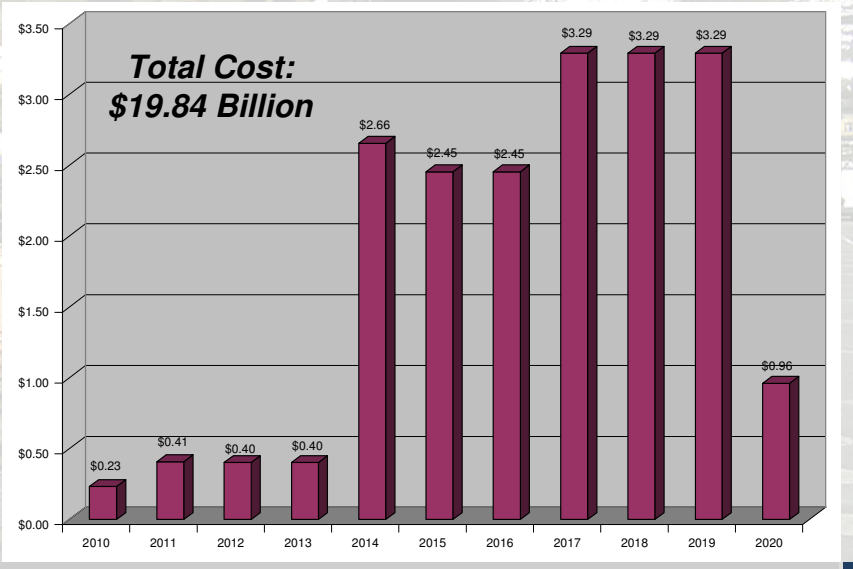
Capital Costs for the Build Out of the Preferred Alternative in Billions 2008$



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Funding Sources

- **States for Passenger Rail –**
  - Goal is an 80/20 split between Federal and State Funding
- **State Match can include –**
  - State funds
  - County funds
  - Private Sector funds
- **Private Sector Funds –**
  - Equipment
  - Stations:
    - Joint Development / Leases
  - Franchises:
    - Track and Vehicle Maintenance
    - On Train Services

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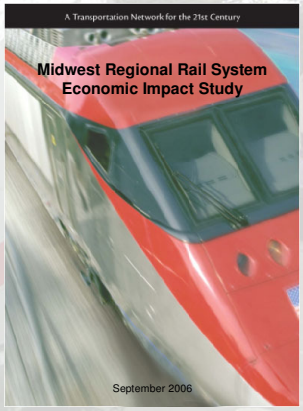
Capital Program

- **Recent studies by TEMS and Mercator/Vantage Point show that:**
  - Job creation in MWRRI states of building 10.6 Billion high speed rail system creates significant tax returns.
  - Tax benefit to Federal Government is $21.0 billion by 2047, which exceeds tax credit bond contribution of Federal Government by $1 Billion.
  - Tax benefit to MWRRI states is $3.3 Billion over life of Bonds, which offsets 70 percent of $4.7 Billion required local match.



- **Overall Economic Benefit - $12.1 Billion**
- **Benefit-to-Cost Ratio – 1.8**
- **Permanent New Jobs – 57,450**
- **Average Annual Jobs During Construction – 15,200**

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Feasibility Study Report

- **Chapter 1 Colorado High Speed Rail Planning Process**
  - Approach to Study
- **Chapter 2 Target Markets**
  - Travel in Colorado Today
- **Chapter 3 Equipment and Technology Options**
- **Chapter 4 Infrastructure Needs**
  - Route Alternatives
- **Chapter 5 Operating Plans**
  - Matrix of Alternatives
- **Chapter 6 Market Penetration and Revenues**
  - Ridership and Revenue
  - Demand Model

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Feasibility Study Report

- **Chapter 7 Operating Costs**
- **Chapter 8 Capital Costs**
- **Chapter 9 Preferred Option**
  - Alternatives Analysis
  - Public Involvement Results
  - Selection of Preferred Option
  - Mix and Match Process
- **Chapter 10 Implementation Plan**
  - Milestones for Development of the System
  - Risk Analysis (Optional)
  - Funding Options
- **Chapter 11 Conclusions**
- **Chapter 12 Next Steps**
  - How we take the system forward

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Freight Rail Risk Analysis

- **Comparison to Options 1, 2, 3 or 4**
  - Plus Pando-to-Eagle and Colorado Springs separations
- **Qualitative Format of Risk: Empirical Estimates**
- **Development of Risk Profile**
- **Items to be assessed include:**
  - Ridership/Revenue
  - Equipment Cost
  - Operating Cost
  - Capital Cost
  - Land Use Impacts
- **Assess Potential Risk to the Viability of Project**

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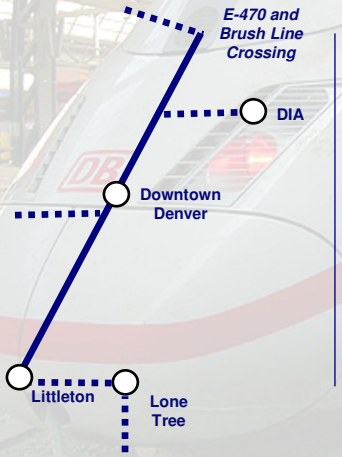
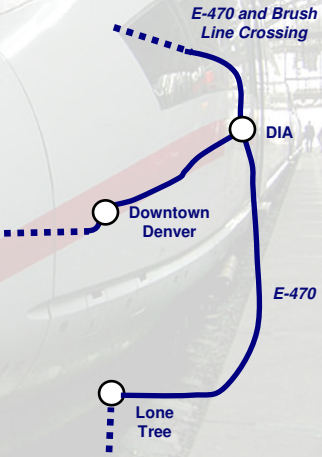
Risk Analysis Options

Option 1 – Non Compliant on Freight ROW



Option 2 – E470 only



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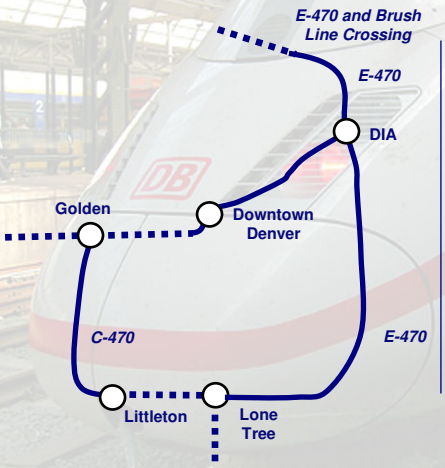
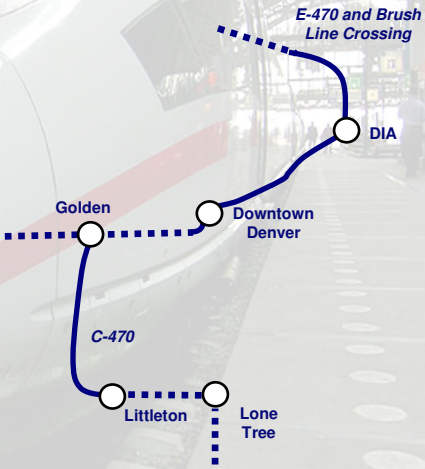
Risk Analysis Options

Option 3 – E470 with C470



Option 4 – C470 only



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Thank You.
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